

StarTalk Flash Installation Guide

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Regulatory information

FCC Regulations

This equipment complies with FCC Rules and Regulations Part 68 when connected to Norstar Modular Key System Unit. This equipment does not connect directly to the public switched telephone network.

DOC Regulations

This equipment complies with the Canadian DOC CS-03 Rules and Regulations for connection to the Norstar Key System Unit.

Radio Frequency Interference

◆ **CAUTION:** This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Part 15 of the FCC Rules and CSA specification C108.8, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case users will be required, at their own expense, to take whatever measures are necessary to correct the interference.

This apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations for the Canadian Department of Communications.

▼ **CAUTION:** The Norstar Applications Module contains fragile electronic parts. **DO NOT DROP OR BUMP THE MODULE.**

Repair facilities

In the event of equipment malfunction, all repairs will be performed by Northern Telecom or by one of its authorized dealers.

In the USA:

Northern Telecom Inc.
Product Service Center
640 Massman Drive
Nashville, TN 37210

Tel: 1-800-466-7835

Note: You receive an Repair Authorization number (RA#) when you call the repair center in Nashville. This number should appear on the package of any and all parts sent to this location for repair.

In Canada:

Northern Telecom Canada Ltd.
30 Norelco Drive
Weston, ON
M9L 2X6

Tel: (416) 744-5201

Fax: (416) 744-5227

Introduction

StarTalk Flash is a fully automated receptionist service that offers call routing and message taking services. This document is intended for an installer of the StarTalk Flash system and describes how the system should be installed and prepared for operation.

Models

StarTalk is available in two different models. The model number represents the number of voice channels enabled at the factory.

Model Number	Number of Voice Channels	Number of Station Ports	Number of Mailboxes	Minutes of Message Storage
2	2	1	24	90
4	4	2	48	180

For more information about StarTalk hardware, refer to the **StarTalk Flash Maintenance Manual**.

Ports versus channels

The StarTalk Flash module is connected to the Norstar Key Service Unit (KSU) through the station ports. Each station port is capable of having either two voice or a voice and data conversation simultaneously. The two voice channels are referred to as the B1 and B2 channels. This provides StarTalk with the capability of handling two calls simultaneously on the port.

Before you start

- ☐ Read this guide.
- ☐ Make sure all the equipment in the package is accounted for. A **Package check list** is provided later in this guide.
- ☐ Make sure you have the necessary tools to complete the installation. A **Special parts check list** is provided later in this guide.
- ☐ Make sure the environment and electrical conditions are met. An **Environment** and an **Electrical check list** are provided later in this guide.
- ☐ Make sure you are familiar with the steps required to install StarTalk. An **Installation check list** is provided later in this guide.

Package check list

Make sure the package contains:

- ☐ a StarTalk Flash module
- ☐ a power supply
- ☐ a teladapt cord (two cords are required for a Model 4)
- ☐ a shrink wrapped package of documentation
- ☐ a Feature Cartridge

Special parts check list

To begin an installation, you need:

- ☐ screwdriver or power drill
- ☐ anti-static grounding strap
- ☐ two #10 X 2.5 cm (#10 X1 in) round head wood screws
- ☐ one modular telephone jack (two jacks are required for a Model 4)
- ☐ twisted pair station wire
- ☐ plywood backboard 2 cm (3/4 in) thick
- ☐ surge protector (recommended)
- ☐ RS-232 terminal or RS-232 printer with cable (optional)
- ☐ Norstar Installation Guide

Note: If there are no free station ports at the distribution block you need this guide for instructions on installing a Norstar station port.

This equipment is not supplied with the StarTalk Flash module.

Environment check list

The installation area should be:

- ☐ clean, free of dust, dry and well ventilated
- ☐ between 0° and 40° Celsius
- ☐ non-condensing relative humidity between 5% and 95%
- ☐ at least 4 m (about 13 ft) from any equipment that could produce electromagnetic, radio frequency and electrostatic interferences
- ☐ a wall area approximately 1 m (about 3 ft sq) square
- ☐ within 305 m (1000 ft) of the Norstar KSU
- ☐ within 1.5 m (about 5 ft) of a three-wire grounded electrical outlet
- ☐ a minimum of 16 cm (about 6 in) from a corner wall or other component
- ☐ a minimum of 46 cm (about 18 in) from the floor

Note: The distance from the floor should be enough to prevent water damage.

Electrical check list

The electrical requirements for the StarTalk Flash module are:

- ☐ 115 VAC nominal (105 to 129 volts)
- ☐ frequency 60 Hz nominal (47 to 63 Hz)
- ☐ current 0.2 Amps maximum
- ☐ 3rd wire ground
- ☐ unswitched

DO NOT connect the module to a socket on a circuit that is likely to be overloaded or used by large office equipment or power tools.

Installation check list

Installing a StarTalk Flash module means you must:

- ☐ Install the module
 - mount the unit to the wall
 - install the Feature Cartridge
 - connect the station port(s)
 - connect the power supply
- ☐ Initialize StarTalk
- ☐ Connect a terminal or printer if required (optional)
- ☐ Determine the Feature Codes
- ☐ Name the StarTalk port

Installing the module

After you have verified the environment conditions and your equipment, select a location for the module that is close to the KSU, in a place free of traffic. The area should also be free of dampness and dust.

IMPORTANT: If you are replacing a StarTalk Mini with a StarTalk Flash, read **Appendix A** before proceeding with the installation. You **must** apply the instructions in **Appendix A** before installing the StarTalk Flash Module.

◆**Warning:** The StarTalk Flash module weighs 1.5 kg and contains fragile electronic components.

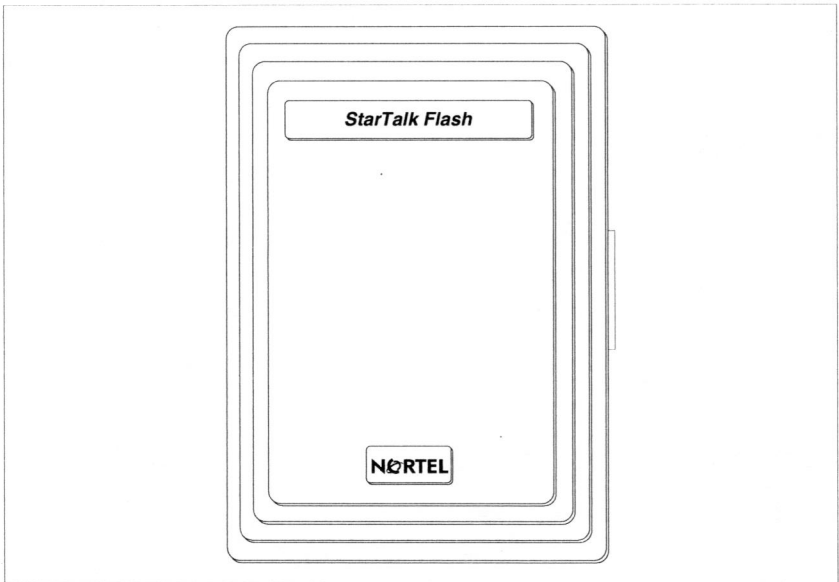


Figure 1 – The StarTalk Flash module

Mounting steps

You must open the door of the unit before you can mount the module. To mount the module:

1. Position the StarTalk Flash module next to the KSU and hold it against the plywood backboard.
2. Install a #10 X 2.5 cm (#10 X1 in) wood screw in the top screw hole, but do not tighten it completely.
3. Make sure the module is level. Install and tighten a wood screw in the bottom screw hole.
4. Tighten the top screw to secure the module.
You are now ready to connect the module to the KSU.

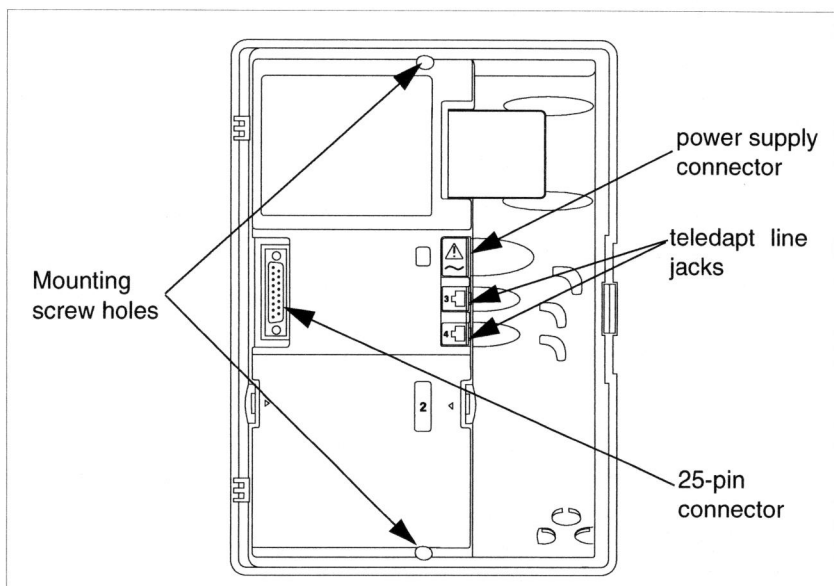


Figure 2 – Mounting screw holes and connectors

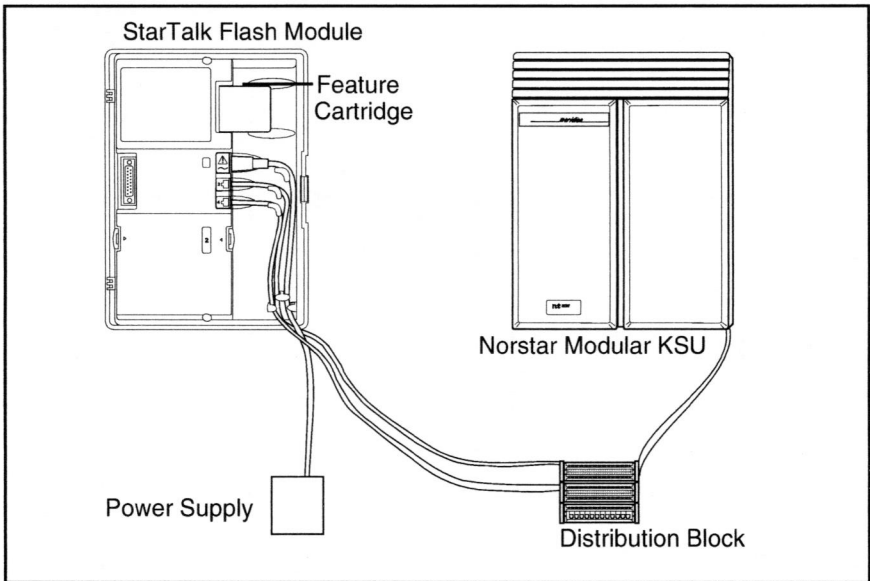


Figure 3 – Installation overview

Connecting the module to the KSU

Before you begin, ensure a Norstar station port is available at the distribution block and all line appearances are removed from the StarTalk Flash DN(s) prior to booting the unit. For instructions on installing a station port and removing line appearances, refer to the **Norstar Installation Guide** that came with the Norstar KSU.

To connect the module:

1. Locate the distribution block.
2. Ensure there is one available station port at the distribution block.
3. Mount the teladapt jack next to the distribution block.
4. Use twisted pair station wire to connect the teladapt to a free station port in the distribution block.
5. Use a working Norstar telephone to test the port.
6. Connect one end of the teladapt to the station port at the side of the module. Connect the other end to the teladapt jack. Do not use a teladapt cord longer than 4.5 m (about 14 ft).

Installing the Feature Cartridge

The StarTalk Feature Cartridge is a PCMCIA ROM card that contains all the StarTalk operating software and voice prompts.

To install the feature cartridge insert the PCMCIA ROM card into the slot provided on the StarTalk Flash module. Refer to Figure 4 for more information.

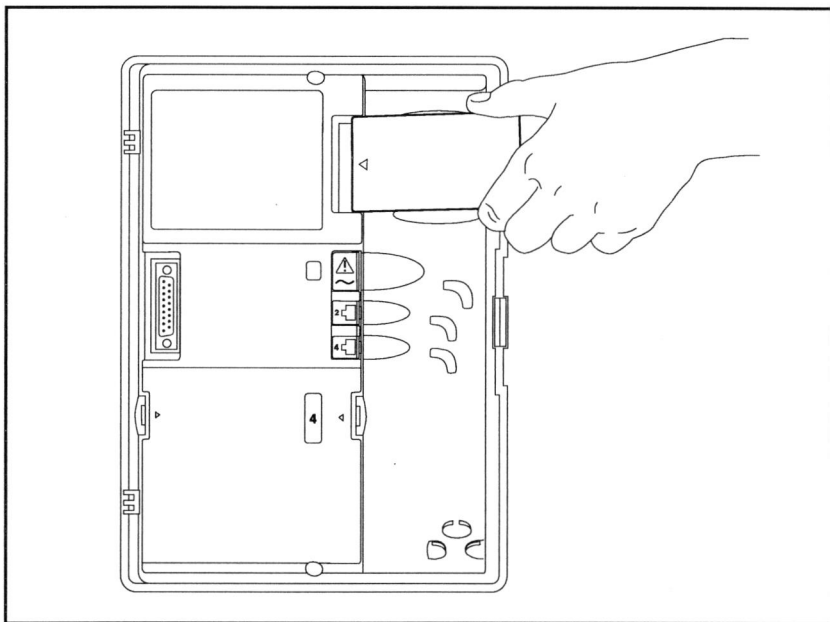


Figure 4 – Installing the StarTalk Flash Feature Cartridge

Connecting the power supply

When you connect the power supply, the power to the StarTalk Flash module is turned ON.

To connect the power supply:

1. Open the module door. Locate the module power receptacle. Refer to Figure 2, for the location of the power receptacle.
2. Place the cylindrical connector of the power supply into the slot, and slide the connector up into the receptacle. Ensure the connector's key is correctly positioned (the key, indicated by a small dashed line and indent in the connector, should face towards you as the connector is inserted). Refer to Table 1.
3. Plug the power supply into a grounded power outlet.

The red power Light Emitting Diode (LED) on the module should light up. If the LED does not light up:

4. Verify there is AC power.
5. If there is power at the AC outlet, verify there is power output from the power supply (voltage of 24 to 30 VAC rms across pins 1 & 3).

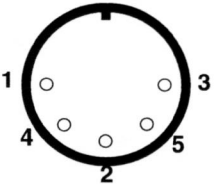
	Pin	Connection
	1	24 VAC rms
	2	safety ground
	3	24 VAC rms
	4	no connection
	5	no connection

Table 1 – Pin outs of connector from power supply to StarTalk

6. If there is power output from the power supply, replace the StarTalk Flash module.

To finish, close the module door. Ensure that the power cord and teladapt cord are routed through the cable guides on the module.

This completes connecting the power supply. You are now ready to begin initializing StarTalk.

Initializing StarTalk Flash

Initializing StarTalk establishes:

- the mailbox number digit length matches the Norstar DN length
- the primary and alternate languages of the StarTalk voice prompts
- if the Group List option is enabled

the leading digit for Group Lists (if the Group List option is enabled)

Preparing

Before you begin:

- ☐ Review the **StarTalk Flash Programming Record** to determine and record the required programming settings.
- ☐ Make sure you have a Norstar telephone with a two line display available.
- ☐ Determine the Norstar KSU software version.

Determining the KSU software version

The KSU software version must be compatible with StarTalk. For more information about compatibility, refer to **Checklists**, earlier in this guide. To determine the KSU software version:

1. Enter the Norstar Configuration access code:

* * 2 6 6 3 4 4 (C O N F I G)

The display shows:

Password:

2. Enter the Installer password (the password does not appear on the display as you enter it). The default Password is **CONFIG (266344)**.

Note: You must have a Norstar Programming Overlay. For more information on Configuration programming, refer to the **Norstar Installation Guide**.

3. On a Norstar Modular KSU System, press three times the display shows:

D. Maintenance

then proceed to step 5.

4. On a Norstar Compact / 3X8 KSU System, press three times

the display shows:

D.System Version

then proceed to step 6.

5. Press

The display shows:

1.System Version

6. Press

The display shows:

**SP: 30MUJ24 DR5
RTP**

The Software Version feature allows you to check the software version number of the System Processor in your Norstar system.

The display uses a series of letters and numbers to denote the software version. For example, if the display shows **SP: 30MUJ24 DR5** the version is DR5 9.24. Norstar uses letters of the alphabet to designate version numbers. The letter A represents 0, the letter B represents 1 and so on. The third character to the right of the colon (**M**) indicates the kind of KSU software and the next character (**U**) indicates the language combination of the KSU software

Refer to Table 2 to verify the compatibility of your KSU version with StarTalk Flash.

To end this StarTalk session, press

KSU Software Version Compatibility

KSU Version	SP Software Number
Compact Disconnect Supervision English/French English/Spanish	SP: 30NSE05 DR5 or greater SP: 30NYE05 DR5 or greater
Compact Non-disconnect English/French English/Spanish	SP: 30MJJ21 DR5 or greater SP: 30MKJ21 DR5 or greater
Modular DR5 English/French English/Spanish	SP: 30MUL07 DR5 or greater SP: 30MVL07 DR5 or greater
Centrex + English/French English/Spanish	SP: 30MGJ22 DR5 or greater SP: 30MHJ22 DR5 or greater
3X8	SP: 30NPE07 DR5 or greater
Modular ICS Release 1 - T1	All version numbers are compatible
Modular ICS Release 1 - Centrex	All version numbers are compatible
USA-MICS-XL 1.0	All version numbers are compatible
USA-MICS-XC 1.0	All version numbers are compatible
CDA-MICS-XC 1.0	All version numbers are compatible

Table 2 – Software Compatibility

Initializing

To initialize StarTalk Flash:

1. Enter the System Administration Feature Code.

Note: The default code is

The display shows:

```
Pswd:
RETRY      OK
```

2. Enter (C O N F I G)

3. Press OK

The display shows:

```
Bilingual?
YES      NO
```

4. Press YES or NO

The display shows:

```
Primary lang?
ENG      FRE
```

5. Select the primary language.

Note: Press ENG for English, FRE for French or SPA for Spanish.

The display shows:

```
Group lists? Y
CHNG      OK
```

6. Press OK to enable Group Lists.

Note: If group lists are not required, press CHNG. However, if you disable Group Lists, you must re-initialize StarTalk to re-enable the Group Lists.

The display shows:

```
Glist lead dig:9
CHNG      OK
```

Note: If 9 is not the leading digit for Group Lists, press CHNG and enter the new number. The Group List leading digit can be any number from 0 to 9. Special Mailbox numbers automatically begin with 1, so if you select a Group List leading digit of 1, the Special Mailboxes will begin with 2. The Group List Leading Digit cannot be the same as the first number of any other mailbox.

7. Press OK to enable the Leading Digit.

The display shows:

```
System config
RETRY      OK
```

8. Press OK

The display shows:

```
Configuring...
```

Note: Press RETRY to return to Step 3

When the initial configuration is completed, the display shows **System ready** and **Exit**. The display then returns to the Norstar date and time.

Determining StarTalk Flash Feature Codes

The default Feature Codes for StarTalk are 980 through 986, inclusive. When these Feature Codes are used by other Norstar applications, Norstar assigns Feature Codes between 900 and 999 to StarTalk. These codes might not be assigned in sequential order. Record the assigned Feature Codes on Table 3 below.

Feature Code name	Number
Leave Message	Feature 9 ____
Open Mailbox	Feature 9 ____
Operator Status	Feature 9 ____
System Administration	Feature 9 ____
Extension Number	Feature 9 ____
Transfer	Feature 9 ____
Interrupt	Feature 9 ____

Table 3 – Assigned Feature Codes

To determine the StarTalk Feature Codes:

1. Press on a Norstar M7310 or M7324 telephone.

The display shows:

Leave ms9:F9XX
NEXT

Note: XX represents a number between 00 and 99.

2. Record the Feature Code for the Leave Message Feature on the **StarTalk Flash Programming Record**, and above in Table 3.
3. Press NEXT. The display shows the Feature Code for the Open Mailbox Feature. Record this code on the **StarTalk Flash Programming Record**, and above in Table 3.

- Continue pressing **NEXT** to show all the StarTalk Feature Codes. Record each Feature Code on the **StarTalk Flash Programming Record**, and above in Table 3.

When you reach the final Feature Code the display shows:

Interrupt:F9xx
QUIT

To end this StarTalk session, press **Rls**

Determining the StarTalk Flash Directory Number (DN)

To determine the StarTalk DN:

- Enter the StarTalk DN Feature Code.

Note: The default code is **Feature** **9** **8** **5**

The display shows:

Set XX
OK

Note: XX represents the DN.

To end this StarTalk session, press **OK** or **Rls**

Naming the StarTalk Flash port

After the installation and initialization are completed, we recommend you use Norstar Configuration programming to rename the Norstar station port that StarTalk is connected to. We recommend you name the port **STARTLK**.

To name the StarTalk Flash DN:

- Enter <the Norstar Configuration access code:

Feature ***** ***** **2** **6** **6** **3** **4** **4** (**CONFIG**)>

The display shows:

Password:
RETRY

- Enter <the Installer password> The default password is **CONFIG (266344)**.

3. Press

The display shows:

B. General admin

4. Press

The display shows:

1.Sys speed dial

5. Press

The display shows:

2. Names

6. Press twice.

The display shows:

Show set:

7. Enter <the number of the station port>

8. Press

9. Enter <the name STARTLK by pressing the appropriate dialpad button>

Note: Press --> to move the cursor to the next position.

To end this StarTalk session, press

Note: For more information about Norstar Configuration, refer to the **Norstar System Coordinator Guide**.

StarTalk Flash DN length

For StarTalk to work properly, the mailbox number length must match the Norstar KSU DN length. When you change the KSU DN length, the StarTalk system automatically reboots itself. Once the system completes its reboot, you must re-initialize and reprogram StarTalk. For more information about the KSU DN length, refer to the **Norstar Installation Guide** that came with your system.

Determining the StarTalk Flash software version

To determine the software version of the StarTalk Flash module:

- 1. Enter the System Administration Feature Code.

Note: The default code is

The display shows:

Log:
QUIT RETRY OK

- 2. Enter

Note: This number depends on the mailbox number length being used. For more information about the mailbox number and default password combination for each mailbox number length refer to Table 4 below.

Norstar DN length	StarTalk mailbox number length	System Coordinator mailbox and default password combination
2	2	120000
3	3	1020000
4	4	10020000
5	5	100020000
6	6	1000020000
7	7	10000020000

Table 4 – Norstar DN length, corresponding StarTalk mailbox number length and System Coordinator mailbox number and default password.

- 3. Press OK

The display shows:

Admin
MBOX AA OTHR

- 4. Press

The display shows:

*Talk Flash xxx
OK

To end this StarTalk session, press

Maintenance Required

Maintenance of the StarTalk installation is required if you attempt to initialize the system and the display shows:

Inactive feature

Should this occur:

1. Check the wiring at the distribution block, then enter the System Administration Feature Code. The default code is

Feature 9 8 3

The display should show:

Log:
QUIT RETRY OK

2. If the display still shows **Inactive feature** disconnect the power cord and check all the wiring for the StarTalk Flash module. Make sure the:
 - power supply is connected and plugged in
 - StarTalk Flash module has had the necessary time to complete the three minute self testing procedure
 - StarTalk Flash module is connected to a working station port
 - power source to the StarTalk Flash module is not damaged
3. After checking all the wiring, reconnect the power. Wait three minutes and enter the System Administration Feature Code.

The display should show:

Log:
QUIT RETRY OK

Note: If you have checked the wiring and the module is still not operational, unmount and repackage the module, and return it to your distributor.

Appendix A: Upgrading to StarTalk Flash

If you are upgrading from a StarTalk Mini to a StarTalk Flash, the codes from the StarTalk Mini software may still be stored in the KSU. You must remove the old codes using the External Feature Inquiry utility before installing a StarTalk Flash module.

From a Norstar set:

1. Press * * X F T E S T

which is the same as

Press * * 9 3 8 3 7 8

The display shows:

Password:

RETRY

Note: **Access denied** appears if you cannot use external feature inquiry from your telephone.

In use: appears if someone else is using external feature inquiry, or an external feature is requesting an external feature access code.

2. Enter <the Installer password>
The default password is CONFIG (266344). For more information about the Installer password, refer to the **Norstar Installer Guide** that came with your KSU.

The display shows

Feat. code:

FIRST EXIT

3. Press FIRST
The external feature access codes from the previous StarTalk software are cleared.
4. Press to exit external feature inquiry.

You are now ready to install the StarTalk Flash module. Refer to **Installing the module** earlier in this guide.

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